UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,734	09/30/2004	Lee George LABORCZFALVI	2006579-0244 (CXT-110)	5733

69665 7590 11/14/2007

CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC.
TWO INTERNATIONAL PLACE
BOSTON, MA 02110

EXAMINER	
WEI, ZHENG	

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
11/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/711,734	LABORCZFALVI ET AL.	
	Examiner	Art Unit	
	Zheng Wei	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/06/2004; 05/18/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the application filed on 09/30/2004.

2. Claims 1-22 are pending and have been examined.

Oath/Declaration

3. The Office acknowledges receipt of a properly signed oath/declaration filed on December 29, 2004.

Information Disclosure Statement

4. The information disclosure statements filed 12/06/2004 and 05/18/2006 have been placed in the application file and the information referred to therein has been considered.

Drawings

5. The drawings filed on September 30, 2004 are accepted by the Examiner.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

Claim 1 recites the limitation "the context" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-13:

Claims 2-13 are dependent claims of claim 1. Therefore they are also rejected for the same reason.

Claim 2:

Claim 2 recites the limitation “step(a)” in line 1. However, there is no “step (a)” that is defined in claim 1.

Claim 3:

Claim 3 recites the limitation “step(c)” in line 1. However, there is no “step (c)” that is defined in claim 2 or claim 1.

Claim 4:

Claim 4 recites the limitation “step(a)” in line 1. However, there is no “step (a)” that is defined in claim 1.

Claim 5:

Claim 5 recites the limitation "step(c)" in line 1. However, there is no "step (c)" that is defined in claim 4 or claim 1.

Claim 6:

Claim 6 recites the limitation "step(a)" in line 1. However, there is no "step (a)" that is defined in claim 1.

Claim 7:

Claim 7 recites the limitation "step(c)" in line 1. However, there is no "step (c)" that is defined in claim 6 or claim 1.

Claim 8:

Claim 8 recites the limitation "step(a)" in line 1. However, there is no "step (a)" that is defined in claim 1.

Claim 9:

Claim 9 recites the limitation "step(c)" in line 1. However, there is no "step (c)" that is defined in claim 8 or claim 1.

Claim 10:

Claim10 recites the limitation "step(c)" in line 1. However, there is no "step (c)" that is defined in claim 1.

Claim 13:

Claim 13 recites the limitation "step(c)" in line 1. However, there is no "step (c)" that is defined in claim 1.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 14-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 14:

Claim 14 claims an apparatus for virtual access to native resources, which comprises a hooking mechanism, a name virtualization engine and an operating system interface. Such claimed software module/engine/interface are software program listings per se and it does not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized. Therefore, claim 14 is not statutory. See MPEP 2106.01(I)

Claims 15-20:

Claims 15-20 are dependent claims of claim 14. These claims all fail to remedy the 35 USC 101 nonstatutory problem of claim 14. Therefore, they are also rejected for the same reason.

--These rejections can be overcome by adding computer hardware components e.g., memory, and processor into the claims that permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-5 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demsey (Demsey et al., US 7,203,941) in view of Goldberg (Robert Goldberg, US 4,253,145)

Claim 1:

Demsey discloses a method for virtualizing access to native resources, the method comprising the steps of:

- (a)receiving a request to access a native resource from a process executing in the context of an isolation environment, the request including a virtual name for the native resource (see for example, Fig.3, step 300, "Application

Executing In Virtual Machine makes A Request in Managed Code For Native Resource Access" and related text) ;

- (b)determining that a rule action of remap is associated with the virtual name included in the received request; forming a literal name for the native resource, the literal name identifying a literal native resource of the same type as the requested resource (see for example, Fig.1, item 108, 114 and 726 "Operating System", "Native Resource4 Handle Table", "Resource Allocation and Collection Modules(s)" and related text; also see Fig.2, "Native Resource Handle Tables"; further see Fig.3, steps 304-310 and related text) ; and
- (c)issuing to the operating system a request to access the native resource, the request including the determined literal name for the native resource (see for example, Fig.1, item 726 "Operating System", item 114 "Native Resource Handle Table" and item 702 "hardware"; also see Fig.3, steps 312-314, "Access for requested Native Resource...").

But does not explicitly discloses detailed information about a rule action of remap. However, Goldberg in the same analogous art of supporting recursive virtual computer system, discloses using Ø-map and f-map to map virtual resource name and real resource name (see for example, Fig.6a and related text). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use Goldberg's method to validate and remap a virtual name with a real resource name. One would have been motivated to do so to support several copies of the basic machine interface, then

different privileged software could be run on each of the additional basic machine interfaces simultaneously as suggested by Goldberg (see for example, col.2, lines 37-45)

Claim 2:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein step (a) comprises receiving a request from a process executing in the context of an isolation environment (virtual environment) to access a named system object, the request including a virtual name for the system object (see for example, Fig.3, step 300 and related text).

Claim 3:

Demsey further discloses the method of claim 2 wherein step (c) comprises:
(c-1) determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)..."); and
(c-2) using the determined rule to form a literal name for the system object that identifies a literal system object (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 4:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein step (a) comprises receiving a request from a process executing in the context of an isolation environment to access a file system element, the request including a virtual name for the file system element Fig.3, step 300, "Application Executing in Virtual Machine Makes A Request in Managed Code for Native Resource Access" and related text) .

Claim 5:

Demsey further discloses the method of claim 4 wherein step (c) comprises:

(c-1) determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)...");; and

(c-2) using the determined rule to form a literal name for the file system element that identifies a literal file system element (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 8:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein step (a) comprises receiving a request from a process executing in the context of an isolation environment to access one of a window and a window class, the request including one of a virtual name for the window and a virtual

name for the window class (see for example, Fig.1, item 106, "Base Class Library" and related text).

Claim 9:

Demsey also discloses the method of claim 8 wherein step (c) comprises:

(c-1) determining a rule associated with the virtual name included in the received request (see for example, Fig.6, step 618, "Is Obj(i) Referenced By Applicant(k)..."); and

(c-2) using the determined rule to form a literal name for the one of a virtual name for the window and a virtual name for the window class that identifies one of a literal window name and a literal window class (see for example, Fig.3, steps 310-314, "Assign Name and Address for requested Native Resource To Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 10:

Demsey and Goldberg disclose the method of claim 1, Goldberg further discloses wherein step (c) comprises:

(c-1) accessing a rules engine to determine a rule associated with the virtual name received in the request (see for example, Fig.6a , step 601 and related text) ; and

(c-2) forming a literal name for the native resource responsive to the determined rule, the formed literal name identifying a literal native resource of the same type

as the requested resource (see for example, steps 601-611, "R is the Real Resource" and related text) .

Claim 11:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses the method comprising the step of receiving a handle from the operating system identifying the accessed object (see for example, Fig.3, step 306 "Review Native Resource Handle Tables for availability of Handle for requested Native Resource" and related text) .

Claim 12:

Demsey further discloses the method of claim 11 further comprising the step of transmitting the handle to the process (see for example, Fig.3, step 310, "Assign Name and Address for Requested Native Resource to Obj(i) Entry in Native Resource Handle Table" and related text).

Claim 13:

Demsey and Goldberg disclose the method of claim 1, Goldberg further discloses wherein step (c) further comprises determining, by the remap rule, the literal name of the native resource for the virtual name of the native resource (see for example, Fig.6a and related text about "Ø-map" and "f-map").

12. Claims 6-7 and 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demsey (Demsey et al., US 7,203,941) in view of Goldberg (Robert Goldberg, US 4,253,145) in further view of Schmidt (Brian Keith Schmidt, US 7,206,819)

Claim 6:

Demsey and Goldberg disclose the method of claim 1, Demsey further discloses wherein step (a) comprises receiving a request from a process executing in the context of an isolation environment to access native resource (see for example, Fig.3, step 300, "Application Executing In Virtual Machine makes A Request in Managed Code For Native Resource Access" and related text). But does not explicitly discloses the native resource includes a registry key and the request including a virtual name for the registry key. However, Schmidt in the same analogous art of method and apparatus for providing virtual namespaces for active computing environments, discloses using virtual name (virtual namespaces) to access registry key (file system) (see for example, col.3, lines 20-30, "The underlying file system is mapped into the compute capsule in a port of the capsule called a 'virtual namespace'). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a virtual name to access native resource including file system/registry key. One would have been motivated to do so to provides a private, customizable view of shared file system as suggested by Schmidt (see for example, col.3, lines 20-22, "using the compute capsule, one embodiment of the present invention

provides a private, customizable view of a shred file system...")

Claim 7:

Demsey, Goldberg and Schmidt disclose the method of claim 6, Schmidt further discloses wherein step (c) comprises:

(c-1) determining a rule associated with the virtual name included in the received request (see for example, Figure 6, step 630,"Is capsule naming a resource?" and related text); and

(c-2) using the determined rule to form a literal name for the registry key that identifies a literal registry key (see for example, Figure 6, step 640, "Use translator to translate the named resource in the personal namespace to the actual physical resource" and related text).

Claims 14-22:

Claims 14-22 are apparatus version for performing the claimed method as in claims 1-13 addressed above, wherein all claimed limitation functions have been addressed and/or set forth above and certainly a computer apparatus would need to run and/or practice such function steps disclosed by reference above. Thus, they also would have been obvious.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Degenaro et al., (US 2005/0065937) discloses a virtual resources method, system and service to access actual resources.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-2059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW

TUAN DAM
SUPERVISORY PATENT EXAMINER